	<p style="text-align: center;"><b>DEPARTMENT OF ENVIRONMENTAL QUALITY</b></p> <p style="text-align: center;"><b>Air Resources Management Bureau</b> Air Permitting Section</p> <p style="text-align: center;"><b>GUIDANCE STATEMENT</b></p>	Effective Date: 06/01/07
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		Manual Section: Section II Need for a Permit, 2-6
<p><b>Title:</b> Oil &amp; Gas Well Facilities and Calculating Potential to Emit (PTE)</p> <p>Applicability: All Montana Air Quality Permits/Registered Facilities</p> <p>Title, Date &amp; Author of Superseded Guidance or Policy Statement (if any): NA</p>		

## PURPOSE

The purpose of this guidance statement is to clarify the determination of potential to emit (PTE) for oil and gas well facilities as defined in 75-2-103(13), MCA.

## BACKGROUND

In the spring of 2004, the Department of Environmental Quality – Air Resources Management Bureau (Department) became aware that there was a high probability that many oil and gas well facilities would exceed the PTE permitting threshold and would therefore be required to obtain a Montana Air Quality Permit (MAQP) prior to construction and operation of a facility. The Department undertook a review process and ultimately the Montana Legislature and the Department made some statutory and rule changes, respectively, to deal with air quality permitting or registration for oil and gas well facilities. In January of 2006 the Department was inundated with MAQP applications from oil and gas well facilities, and a concern expressed by this industry was the calculation of PTE, specifically related to separators/heater treaters used at these facilities.

PTE is defined under the Administrative Rules of Montana (ARM) 17.8.740(13) as, "Potential to emit means the maximum capacity of a facility or emitting unit, ***within physical and operational design***, to emit a pollutant. Any physical or operational limitation on the capacity of the facility or emitting unit to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, is treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions are not considered in determining potential to emit."

The Department met with industry representatives on several occasions and was able to tour several oil and gas well facilities to review the physical and operation design differences at the facilities. During this tour, the Department determined

that oil and gas well facilities that were designed to route gas to the pipeline did not disconnect these lines and allow the gas to vent to atmosphere.

## **DETERMINATION**

The issue in determining PTE for an oil and gas well facility is to determine "...the maximum capacity of a facility or emitting unit, ***within physical and operational design***, to emit a pollutant." As stated above, most questions have specifically centered on separators/heater treaters that route gas to a natural gas pipeline.

The Department has determined that a case-by-case review may be conducted, upon request of the applicant, to determine the physical and operational design of the oil and gas well facility to determine the PTE of the facility.

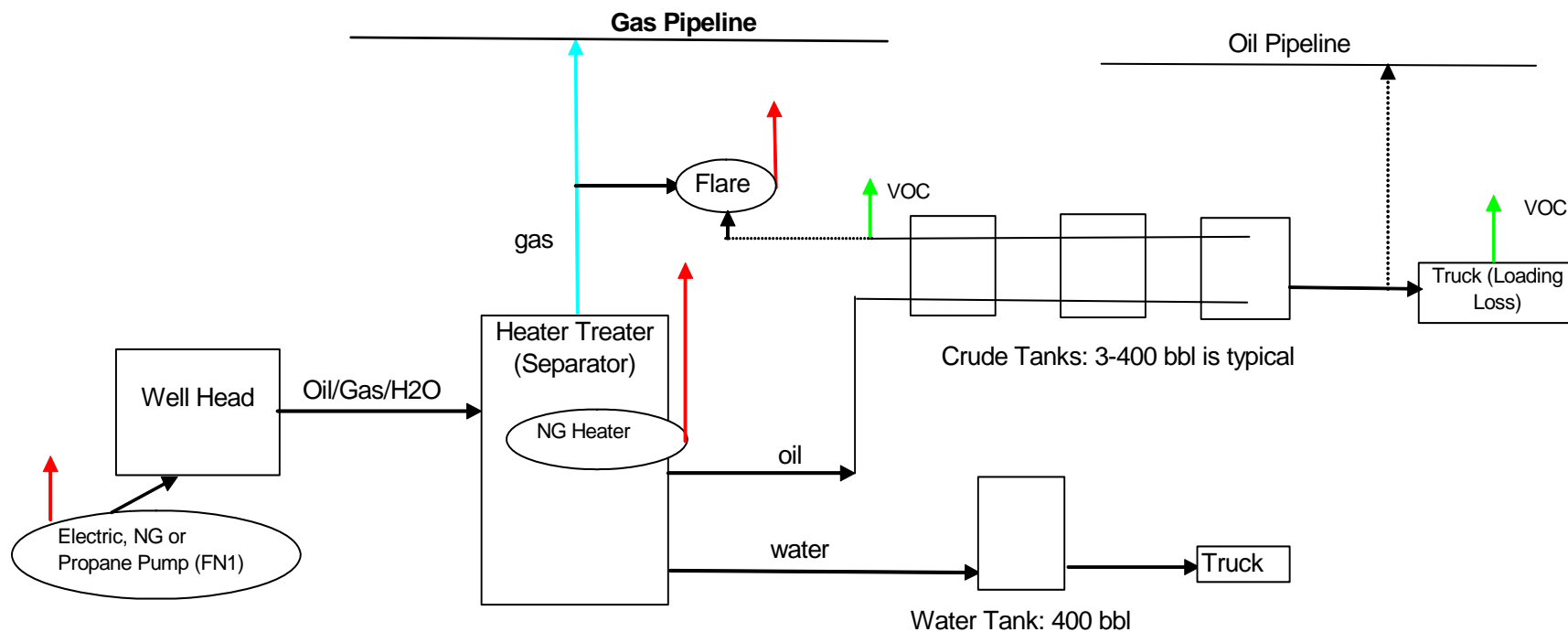
When determining whether the pipeline is an inherent part of the design, the following three questions must be answered.

1. Is the primary purpose of the equipment (i.e. pipeline) to control air pollution?
2. Where the equipment is recovering product, how do the cost savings from the product recovery compare to the cost of the equipment?
3. Would the equipment be installed if no air quality regulations are in place?

Under the case-by-case determinations, the Department will review the design of a facility to make this determination. For example, if the separator is directly connected to the pipeline, the facility will be able to calculate PTE from the facility without including emissions from the separator/heater treater.

Also, if a flare is used in emergency situations, then PTE will be determined consistent with the Department's guidance on backup/emergency generators.

In the example of a general facility set-up provided on the following page, the facility routes oil from the heater treater to the storage tanks and the gas from the heater treater to the pipeline. The flare is used in emergency situations.



Footnote #1: Initial high pressure wells do not need any assistance.

As wellhead pressure decreases, new wells use (1) ELECTRIC or (2) NATURAL GAS (NG) with propane backup.

Older wells with little or intermittent natural gas use propane-fired engines if electric not available.

blue – VOC emissions and gas routed to the pipeline; red and green VOC emissions used to calculate PTE

In determining the potential to emit from the example facility, the answer to the three primary questions above may be:

1. Is the primary purpose of the equipment to control air pollution?

No, the pipeline's primary purpose is to gather hydrocarbons to transport them for sale and use.

2. Where the equipment is recovering product, how do the cost savings from the product recovery compare to the cost of the equipment?

Product recovery is the sole reason the pipeline is installed and the cost savings of the product recovered far outweighs the cost of the pipeline. The only reason the well is completed and the pipeline installed, instead of plugged and abandoned, is recovery of the hydrocarbons through the pipeline outweighed abandonment.

3. Would the equipment be installed if no air quality regulations are in place?

Pipelines have been installed long before air quality regulations were in place. Therefore, even without air quality regulations, the oil and gas industry would continue to collect hydrocarbons for sale and use. The primary way hydrocarbons are collected is through the use of pipelines.

The final determination from this example would be that the facility is inherently designed to send gas to the pipeline. Therefore, the PTE calculation to determine the need for a MAQP or registration would not include the potential gas emissions sent to the pipeline.

## **CONCLUSION**

After review of certain oil and gas well facilities, the Department determined that in some cases venting to the pipeline (or sending product gas to the pipeline) may be considered part of the physical and operational design of a facility. Therefore, those emissions would not be calculated in the PTE to determine the need for an MAQP or registration.

This guidance is only intended for use for oil and gas well facilities as defined by 75-2-103(13), MCA, and is not intended to be applied to different industries and/or facilities.